

THIRD ANNUAL REPORT

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OF THE

TOPOGRAPHICAL SURVEY

OF LOUISIANA

By COLONEL SAMUEL H. LOCKETT,

PROFESSOR OF ENGINEERING, LOUISIANA STATE UNIVERSITY



NEW ORLEANS:

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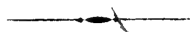
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THIRD ANNUAL TOPOGRAPHICAL REPORT.



LOUISIANA STATE UNIVERSITY,
Baton Rouge.

Col. D. F. Boyd, Superintendent Louisiana State University:

SIR—Herein I beg leave to submit my third annual report of operations in the topographical survey of the State of Louisiana. The parishes that I have visited and examined during the past year are the following, viz: West Feliciana, East Feliciana, St. Helena, Tangipahoa, Washington, St. Tammany and Livingston.

Parish of West Feliciana.

In my first annual report (1869) I incidentally noticed the parish of West Feliciana in a partial description therein given of East Feliciana. My observations on both of these parishes have been of a more detailed and extended nature this year, and the following will be found a more full and accurate account of them:

The bluffs that infringe against the Mississippi river at Fort Adams, in the State of Mississippi, continue in a nearly due south direction to Tunica Bend in West Feliciana; thence they bear southeast to the town of St. Francisville, and thence in the same general direction to Port Hudson and Baton Rouge. Between the line of bluffs and the river is an alluvial bottom, varying in width according to the sinuosities of the river. Where the bluffs cross the State line the width of the bottom is from three and a half to four miles. At Tunica and Bayou Sara it is reduced to almost nothing, while opposite to Morgan's Bend it reaches a width of over eight miles. The character of this bottom is similar to that of the Mississippi bottom at other points. Along the immediate banks of the river the lands are arable and generally cultivated. They are, however, only partially protected from annual overflow. Passing back from the river the surface becomes low and swampy, cut up by bayous and numerous lakes. Among the lakes the most important are, beginning at the north, Lake of the Cross, Ratcliff's Lake, Black Fork Lake,

Pugh's Lake, Cobb's Lake, and the numerous lakes of Cat Island. Turnbull's Island and that made by the Racourci cut-off are included in West Feliciana, and possess characteristics entirely similar to the rest of the bottom.

Leaving the bottom, we rise the steep escarpments, or gentle slopes of the bluffs, reaching, on many summits, an elevation of more than two hundred feet. Throughout the whole of West Feliciana, back to the *line of pines*, we find all the distinctive features of the bluff lands very strongly marked. The creeks and bayous that run through these lands have cut deep, sinuous, narrow valleys, which, with the gullies and lesser valleys of the tributaries, render the surface exceedingly broken and irregular. Between the main streams some extensive level table lands may be found. All of this region is fertile and has been a very fine agricultural country. The rapidity with which the exposed surface washes, however, and the particularly abrupt slopes which all the washes take, have caused much of it to be thrown out, although its fertility is by no means destroyed.

The principal bayous in the bluff region are Tunica, Bingham's, Big and Little Bayou Sam, Alexander's creek, Thompson's creek, with its numerous forks and tributaries flowing in from the west.

The forest growth of the bluff lands is a heavy one, of beech, magnolia, poplar, oaks (the white, overcup and pin oak predominating), black and sweet gums. The soil is of a dark orange yellow color, light, easily worked, becoming quickly muddy in wet and dusty in dry weather.

Going eastward, we find that all the features above described disappear at a line running in general parallel to the Mississippi river, and varying from thirteen to eighteen miles in distance from it. This is the line I have above designated as the *line of the pines*, as that tree becomes one of the characteristic features of the country beyond it.

Mr. William B. Smith, a civil engineer and surveyor of West Feliciana, very kindly traced that line for me, and I will give its location in his own words: "It enters this State and parish two miles west of the middle prong of Thompson's creek, traversing the eastern portion of section sixty-two, township one south, range two west; thence south until it intersects the middle prong of Thompson's

creek; following thence the course of the creek until within about one and a half miles of the line dividing township one south, range two west, and township two south, range two west; then crossing the middle prong of Thompson's creek it traverses section forty-three, township one south, range two west, in a westerly direction to Mill creek; thence west to west prong of Thompson's creek; crossing, it takes a southeasterly course to Vaughn's creek, south of which creek there are no pine woods."

All of West Feliciana east of this line is a good upland country, with rolling surface, covered with a mixed forest of *short-leaved* pine, oaks, beeches, dogwood, etc.

The soil is fair on the hills and good in the creek bottoms, of a sandy nature, and easily cultivated.

This portion of the parish I shall therefore include in the same subdivision as the northern parishes of the State, which in my last year's report I designated as "good uplands."

The only towns of any importance in the parish are St. Francisville, the seat of justice, and Bayou Sara, the shipping point. From this latter point a good railroad is in operation to Woodville, Mississippi.

The products of West Feliciana are corn, cotton and sugar cane. Population, in 1870, 10,499 souls.

Parish of East Feliciana.

The line marking the western limit of the pine trees traced above in West Feliciana crosses Thompson's at the mouth of Vaughn's creek, and continuing in a southeasterly direction intersects the Clinton and Port Hudson Railroad at a point thirteen miles from the latter place; thence still southeasterly to a point on the Baton Rouge and Clinton road, one mile north of the mouth of Redwood creek; thence through the northeast corner of East Baton Rouge parish to Stony Point. All of the parish of East Feliciana west of this line is a bluff region, with all the characteristic features which have been already sufficiently described. Five miles east of Port Hudson are Buider's Plains, mentioned in my report of 1869. These plains average a mile or mile and a half in width from east to west and extend in a north and south direction from five to seven miles, beginning on the south at a point fifteen miles from Baton Rouge

The plains are very much like the prairies of the western portion of the State. They seem to be less fertile than the prairies, however, and have denser jungles of hawthorns and crab-apple trees. We see upon them the same natural ponds and marais that form so striking a feature of the prairies of St. Landry and Calcasieu. In some spots the soil has a grayish white color, while in others it is black and apparently very good, yet all experiments have proved it entirely unproductive. The cause of this unproductiveness is a question well worthy of the study of the agricultural chemist.

East of the line above traced the parish is a good upland country to Sandy creek. Fine farms are found on Black bayou, Red Wood creek, the Amite river, Pretty and Walnut creeks. Olive Branch and all the tributaries of Thompson's creek flowing in from the east. On the ridges and hill tops the *short leaf* pine frequently gets the ascendancy of all other growth, but no part of this portion of East Feliciana can properly be called a "pine woods country." Crossing Sandy creek we come to the genuine long leaf pine hills five miles east of the town of Clinton. Sandy creek, therefore, to a point a little South of Clinton, may be taken as the boundary line of the long leaf pines for the northern portion of the parish. Going south this line bears eastward and follows the course of Black creek to its entrance into Amite River.

Even in this portion of East Feliciana there are some fine farming tracts along the banks of the lesser streams. The bottom of Amite river averages about two miles in width, but is not generally settled or cultivated, owing to the certainty of annual overflow.

Clinton and Jackson, the former the courthouse town, and the latter of Centenary College, are the principal towns of the parish.

The products of the bluff lands are cotton, corn and cane; of the uplands cotton and corn and sweet potatoes.

The population of the parish, in 1870, was 14,376 souls.

Parish of St. Helena.

This parish is bounded on the north by Mississippi; on the east by the parish of Tangipahoa; on the south by Livingston, and on the west by East Feliciana. A considerable portion of the eastern part of the old parish has been recently taken to form a part of the new parish of Tangipahoa. It is throughout its entire length and

breadth, a pine woods parish, the uplands being covered with the long leaf pine. Amite river forms the western boundary line, and has flowing into it Beech creek, Darling's creek, Lilly's creek and Olive creek. Tickfaw river flows through the eastern part of the parish, with Mill creek on the east, Joseph's branch and Twelve-mile creek on the west for its principal tributaries. Hog branch and its several head-water tributaries rise in the southern part of the parish. On all of these small streams are found the farms of the parish, the soil being, as is usual in such sections of country, light, sandy and good when fresh, but soon wearing out under the present system of agriculture. We therefore see in this parish numbers of old fields grown up with the scrub old field pine. The surface of the parish is hilly, the elevation of the ridges gradually diminishing toward the south, and finally sloping off into a general level near the southern boundary. This boundary line may be taken as the average limit of the pine hills.

Greensburg, the court house town, is the only village in the parish. Its population is between one and two hundred souls. The products of St. Helena are corn, cotton, sweet potatoes, and pine lumber to some extent. The population, in 1870, 5,920.

Parish of Tangipahoa.

This is one of the recently created parishes, being formed of parts of St. Helena, Livingston, Washington and St. Tammany. It lies along the New Orleans, Jackson and Great Northern Railroad, having a length of about fifty (50) miles and an average breadth of eighteen (18) miles. The northern half of the parish is hilly and covered by the characteristic long-leaf pine. The elevation of the extreme northern limit of the parish as shown by the profile of the New Orleans, Jackson & Great Northern Railroad is two hundred and fifty feet above tide water. Thence there is a gradual descent to the swamp which begins at a distance of from six to eight miles from the coast. The line traced in St. Helena as marking the base of the hills runs across the parish of Tangipahoa, about eight miles south of Amite city, bearing southeast after crossing the Tangipahoa river, and finally strikes the Tchefuncta river eight miles northwest of Covington. All south of this to the swamp line the surface of the country is very level, though gradually declining as above stated. The principal grow this the long-leaf yellow pine.

Natalbany river runs through the western part of the parish and forms part of the western boundary line. The Tangipahoa, a beautiful clear stream, runs through the centre of the parish from north to south. Between these two streams the level lands extend northward to within a short distance of Tangipahoa station.

South of the pine flats comes the coast swamp. This is generally an impenetrable jungle of tupelo gums, cypress trees and swamp shrubbery. But a striking exception is found to this in the prairie marsh through which the railroad runs two miles south of Pontchartroula station. This marsh is beautifully level, firm enough to be traversed on horseback, and covered with a rank growth of marsh grass. It is subject to tidal overflow; but protected from that, would probably make exceedingly fertile rice lands.

The settlers in Tangipahoa parish are found mostly along the line of the railroad and on the head waters of Natalbany river, the tributaries of Tangipahoa, the Tchefuncta and the streams which flow into it. The bottom of Tangipahoa is occasionally settled and under cultivation. The principal tributaries of Tangipahoa river are, on the west, Terry's and Beaver creek, on the east Thompson's Spring, Big creek and Chappapela river. All of these are fine clear bold streams, affording fine water power and good fishing. The products of the parish are cotton, corn, lumber, fish and game. The population in 1870, 7947.

Parish of Washington.

This is the extreme northeast parish of those lying on the east of the Mississippi river. Pearl river forms its eastern boundary line, and the Tchefuncta its western, the parish of St. Tammany forming the boundary on the south. Like St. Helena, it is eminently a long-leaf pine hill parish, with, however, some special features of interest. The parish is intersected by a number of most beautiful limpid streams, all of them bold, perennial, and with fall enough to afford fine water power. The transparency of the waters of all of these streams, and especially of those in the eastern part of the parish, can scarcely be realized from a mere description. They must be seen to be fully appreciated. Flowing through a sandy, well wooded country, they are not rendered turbid by heavy falls of rain, and when in their normal condition the smallest grains of white sand can be seen

rolling along their dimpled bottoms even where the water is several feet in depth. Fine brook trout and perch and pike can be seen sporting in them, but the fisherman has poor luck with the hook and line. The Tchefuncta, Bogue Chitto, Pushapatapa and Bogue Loosa are the largest of these streams. These have numbers of smaller tributaries possessing the same characteristics as their principals. Flowing into Pearl river is a large number of short but full creeks. These take their rise at the base of the hills bordering the bottom of Pearl river. Their source is generally one or several large springs. Ard's spring and the Jacksonville springs are the most noted of these. The former, situated in the northeastern corner of the parish, covers an area of between two and three acres, over which surface the water boils up from thousands of holes in the pure white sand of the bottom. The creek that flows from this spring contains nearly enough water to float a steamboat. The springs at Jacksonville have been improved, and were once resorted to for bathing purposes. The waters possess no healing properties, and are remarkable only for their absolute purity.

Between the Tchefuncta and Bogue Chitto I crossed the track of one of those terrific hurricanes that sometimes sweep over our Southern States. For a width of nearly one mile there was not one tree left standing. Most of them were torn up by the roots and lay prostrate in full length. But many in the vain effort to resist the fierce tornado had been twisted in two and lay scattered around in hundreds of shattered fragments.

The farming regions of Washington parish are situated along the streams and tributaries above mentioned. The Tchefuncta and Bogue Chitto bottoms contain the largest farms now under cultivation. The bottom of Bogue Chitto is about one and a half to two miles in width on either side of the stream, consisting of first a half mile of good alluvial soil, then a half mile of hummock land and seed brakes, and then about a mile of second bottom entirely above overflow. The bottom of Pearl river is, on an average, three miles in width, similar to that of Bogue Chitto, and formerly contained some fine plantations in flourishing condition. Now most of these are lying idle from a want of labor and frequency of overflows.

The products of Washington are corn, cotton and some cane on Pearl river. Large numbers of cattle, and sheep to some extent,

are raised for the New Orleans market. The forests of pine show by the old cups that turpentine was once made to no inconsiderable extent in some parts of the parish. I was told that business had been entirely abandoned on account of the uncertainty of commanding and controlling labor at critical times. It would seem as if nature had intended that turpentine and lumber should be the principal sources of wealth to all of this and the adjoining parishes. It is also to be hoped that at some future day the splendid water power of Washington parish will be utilized in running mills and factories.

The population of the parish in 1870 was 3381 souls.

Parish of St. Tammany.

The parish of St. Tammany lies south of Washington; has Pearl river for its boundary line on the east, Lake Pontchartrain on the south and the Tchefuncta river on the west.

It may be divided into two distinct topographical sections. A little more than half of the parish on the north is a hilly, pine covered country, similar to St. Helena and Washington parishes. The ridges trending south gradually decrease in elevation, and finally slope off into a uniformly level country about twelve miles from Lake Pontchartrain. The line marking the termination of the hills bears off from the Tchefuncta river near the line between townships five and six. Thence trending eastward it crosses the roads running north from Covington at distances varying between five and six miles from that place; thence bearing more southward, the hills extend to within five miles of the little village of Lima, in the southeastern part of the parish. All of the parish south of this line is extremely level, with an open growth of long leaf pine, diversified by "bay galls," ponds and shallow sluggish *coulees*. Within a mile or two of the coast the forest becomes more dense; the pines are nearly crowded out by water oaks, live oaks, magnolias and gum trees. The swamp and sea-marsh of Tangipahoa parish extend into the southwestern corner of the parish of St. Tammany, and reach the town of Lewisburg. In the extreme eastern part of the parish the delta of the Pearl forms a low flat country, including Honey island, Las Conchas island, and several others of minor importance.

The streams of the parish all flow southward, the most important

being the Tchefuncta (sometimes spelt Chefunctu), Big and Little Bogue Phalia, Abeta Creek, a number of short bayous flowing into Lake Pontchartrain, West Pearl river and the Bayou and the Bogue Chitto. These streams, like those of Washington parish, in their course through the pine hills are clear, bold and quick flowing; in the level country they become deeper and more sluggish. The Lower Tchefuncta and Bogue Phalia are strikingly similar to the two branches of Calcasieu river just before their entrance into Lake Charles.

St. Tammany parish has several villages worthy of notice. Covington, on Bogue Phalia, at the head of navigation, contains some three hundred inhabitants. It is now somewhat dilapidated, but still shows some pretty residences and well-improved yards. Madisonville, Louisburg and Mandeville are pleasant villages on the lake shore, much resorted to by the citizens of New Orleans in search of recreation. Hunting, fishing and bathing facilities constitute their chief attractions.

The products of St. Tammany are cotton, corn and potatoes in the uplands, cane and rice along the coast, cattle from the pine hills and flats, lumber, fish, game, poultry and vegetables for the New Orleans market.

The population is 5586 souls.

Parish of Livingston.

Amite river forms the boundary of Livingston parish on the east and south, the Natalbany on the west, and the parish of St. Helena lies to the north. The parish is level as compared with those just described. The hills of St. Helena, as herein before remarked, terminate near the northern boundary line of Livingston, and excepting a few mounds in the eastern part of the parish, and some slight ridges in the western part there is nothing to break up the general level. And yet there is some diversity in its surface. To indicate this diversity more perfectly I will first give the drainage of the parish. The Natalbany river runs along the eastern boundary line, partly coinciding with it, and partly just within. Tickfaw river runs nearly parallel to Natalbany, between six and eight miles to the west of it, until it bends sharply to the east, in the northwest corner of township eight south, range six west. Tickfaw has two

tributaries on the east, namely: Blood river and Lizzard creek; on the west it has one large tributary called Hog Branch, running in a south southeast course and forming a junction with the Tickfaw near the middle of the parish. Still further westward are three bayous called east, middle and west Colgell respectively, which unite to form one stream in the southern part of the parish, just before emptying into the Amite. Still westward we come to Grey's creek, and then to the Amite.

The space between the Natalbany and Tickfaw rivers is a regular long leaf pine flat. The long leaf pines cross the river above the mouth of Hog Branch and the line which limits them on the west follows the course of that stream to the northern boundary of the parish. Passing west of Tickfaw and Hog Branch we traverse a flat mixed short leaf pine, oak, beech and gum belt, with undergrowth of ground palmettoes, for six miles. Then an open short leaf pine belt, slightly elevated and dry, until we reach the banks of East Colgell bayou. Between this and the West Colgell or Black bayou, as it is sometimes called, the country is almost one continuous jungle. The forest is exceedingly dense, composed of beech, magnolia, gums, swamp oaks, beam wood, ash, hickory, etc., with frequent cane brakes and swamps. In wet seasons this whole country becomes a vast sheet of water, the overflows of the three Colgells uniting with each other.

West of Black bayou the land begins to rise slightly and soon becomes a good farming country. The country along the banks of Gray's creek and thence to the Amite river is a very fine farming region and similar to a large part of the parish of East Baton Rouge.

Along the southern borders of Livingston, in the region known as the French settlements, the lands are Mississippi river alluvion. The borders of Lake Maurepas are swampy and marshy like those of Lake Pontchartrain.

In addition to the items mentioned in the descriptions of the above parishes, I have obtained the names of all streams not named on the published maps of the State. I have located all of the principal roads in the parishes examined, and made pencil sketches of several characteristic scenes, for future use in the illustration of my final report.

To make a summary of my this year's labors, I find that these

Eastern parishes contain within their limits representatives of all of the characteristic topographical features of Louisiana, excepting the prairies, viz: The alluvial lands along the immediate banks of the Mississippi, and extending through Ascension into the southern part of Livingston; second, the bluff lands, whose eastern boundary line runs nearly parallel to the river, at a distance of from twelve to twenty-four miles from it, including in this region more than three-fourths of West Feliciana, scarce one-fourth of East Feliciana, nearly all of East Baton Rouge, and the Amite and Grey's creek country of Livingston; third, the good uplands, which include the northeast corner of West Feliciana, the central portion of East Feliciana and the extreme northeast corner of East Baton Rouge; fourth, the long-leaf pine hill country, which takes in the eastern one-third of East Feliciana, the whole of St. Helena, the northern half of Tangipahoa, the whole of Washington, and the northern half of St. Tammany, after excepting the bottoms of the main streams in all of them; fifth, pine flats, which make up the southern half of St. Tammany and Tangipahoa and more than half of Livingston on the east; sixth, the coast marsh and swamp along the borders of Lakes Pontchartrain and Maurepas.

In conclusion, I would beg leave to state that Major T. S. Hardee, the author of the official map of the State of Louisiana, has very kindly furnished me with an uncolored copy of his map, upon which I have drawn in colors the topographical features of the State. I submit the map as a preliminary one, to indicate the manner in which my completed map will be constructed. In regard to this preliminary map, I would say that only an approximate accuracy is aimed at.

Some of the boundary lines of the topographical subdivisions of the State are already sufficiently accurate for all practical purposes, as they are obtained from authorities undoubtedly good; others are meant to exhibit only the general deductions that I have made from my own unfinished observations.

The line of the coast march I have adopted as given by Major Hardee, and may be relied on as it is taken from the United States Coast Survey maps. The boundary lines of the alluvial lands are mainly taken from the report of Humphreys and Abbot on the Mississippi Valley, and extended to some extent by my own survey.

The lines of all the subdivisions in the eastern parishes, being the results of my this year's labor, which was less in extent but more carefully performed than heretofore, are very close approximations to correctness. In that part of the State west of the Mississippi the prairies are quite accurately delineated. So are the southern limits of the region covered by the long leaf pines. But the line marking the northern limit of the pine country lays no claim to anything but an exceedingly general correctness. I have crossed this line at several points quite distant from each other, and have connected these points by lines that I have endeavored to keep as nearly correct as possible by using information obtained from persons living in the sections of country through which they run.

The map will serve at least one useful purpose, namely, to exhibit at one view the work already done, and what yet remains to be done to make a topographical map of the State.

I am, very respectfully, your obedient servant,

SAMUEL H. LOCKETT,

Professor of Engineering.

Respectfully forwarded to the Honorable Board of Supervisors,

D. F. BOYD, Superintendent.

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